Sheet 2 of SUBSTITUTE ORM PTO-1449 U.S. DEPARTMENT OF COMMERCE Attorney Docket No. 50036/021002 (MODIFIED) PATENT AND TRADEMARK OFFICE Serial No. 09/456,693 Applicant Dasa Lipovsek et al. INFORMATION DISCLOSURE STATEMENT BY APPLICANT Filing Date December 9, 1999 (Use several sheets if necessary) 1646 Group **IDS Filed** November 6, 2000 (37 CFR §1.98(b)) U.S. PATENTS Subclass Filing Date Patent Number Class Examiner's Issue Date Patentee Initials (If Appropriate) OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PLACE OF PUBLICATION) Clarke et al., "Folding and Stability of a Fibronectin Type III Domain of Human Tenascin," J. Mol. Biol. 270:771-778 (1997). Copie et al., "Solution Structure and Dynamics of Linked Cell Attachment Modules of Mouse Fibronectin Containing the RGD and Synergy Regions: Comparison with the Human Fibronectin Crystal Structure," J. Mol. Biol. 277:663-682 (1998). Dickinson et al., "Crystals of the Cell-Binding Module of Fibronectin Obtained From a Series of Recombinant Fragments Differing in Length," J. Mol. Biol. 238:123-127 (1994). Dickinson et al., "Crystal Structure of the Tenth Type III Cell Adhesion Module of Human Fibronectin," J. Mol. Biol. 236:1079-1092 (1994). Ely et al., "Common Molecular Scaffold for Two Unrelated RGD Molecules," Protein Eng 8:823-827 (1995). Ghosh et al., "Structure of NF-kB p50 Homodimer Bound to a kB Site," Nature 373:303-310 (1995). Grant et al., "Structural Requirements for Biological Activity of the Ninth and Tenth FIII Domains of Human Fibronectin," J. Biol. Chem. 272:6159-6166 (1997). Hamers-Casterman et al., "Naturally Occurring Antibodies Devoid of Light Chains," Nature 363:446-448 (1993). Hocking et al., "A Novel Role for the Integrin-Binding III-10 Module in Fibronectin Matrix Assembly," The Journal of Cell Biology 133:431-444 (1996). Hocking et al., "Activation of Distinct α_sβ₁-Mediated Signaling Pathways by Fibronectin's Cell Adhesion and Matrix Assembly Domains," The Journal of Cell Biology 141:241-253 (1998). Hynes, "Integrins: Versatility, Modulation, and Signaling in Cell Adhesion," Cell 69:11-25 (1992). Kohler and Milstein, "Continuous Cultures of Fused Cells Secreting Antibody of Predefined Specificity," Nature 256:495-497 (1975). Koide et al., "Directed Evolution of Fibronectin Type III Domain to Novel Ligand Binding Proteins," Combinatorial Approaches Abstract M40 Koide et al., "The Fibronectin Type III Domain as a Scaffold for Novel Binding Proteins," J. Mol. Biol. 284:1141-1151 (1998). DATE CONSIDERED **EXAMINER** 7-3-01

EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this

\\Ntserver\documents\50036\50036.021002 IDS.wpd

form with the next communication to applicant.

Revised: 27 January 1997

OIPE TENTO

Sheet __1__ of __4__

CADEMAN							т -	
SUBSTITUTE FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE (MODIFIED) PATENT AND TRADEMARK OFFICE					Attorney Docket No.		50036/021002	
(MODIFICATION TO THE MARKET OF				Serial No.		09/456,693		
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)					Applicant		Dasa Lipovsek et al.	
					Filing Date		December 9, 1999	
					Group		1648 1653	
(37 CFR §1.98(b))					IDS Filed		November 6, 2000	
U.S. PATENTS								
Examiner's Initials	Patent Number	Issue Date	Paten	ntee		Class	Subclass	Filing Date (If Appropriate)
115	6,018,030	01/25/00	Ferrari et al.			530	353	
KS	5,792,742	08/11/98	Gold et al.			514	2	
13	5,770,697	06/23/98	Ferrari et al.	-		530	35 3	
145	5,641,648	06/24/97	Ferrari et al.			435	69.1	
#3	5,545,620	08/13/96	Wahi et al.			514	12	
HS	5,514,581	05/07/96	Ferrari et al.			530	353	
HS	5,235,041	08/10/93	Cappello et al.					
FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION								
Examiner's Initials	Document Number	Publication Date	Countr Patent (Class	Subclass	Translation (Yes/No)
#5	WO 00/34784	06/15/00	PCT				1	
115	WO 98/56915	12/17/98	PCT			_		
OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PLACE OF PUBLICATION)								
HS.	Baron et al., "H NMR Assignment and Secondary Structure of the Cell Adhesion Type III Module of Fibronectin," <i>Biochemistry</i> 31:2068-2073 (1992).							
KS.	Boder et al., "Yeast Surface Display for Screening Combinatorial Polypeptide Libraries," <i>Nature Biotechnology</i> 15:553-557 (1997).							
. 15	Bork and Doolittle, "Proposed Acquisition of an Animal Protein Domain by Bacteria," <i>Proc. Natl. Acad. Sci. USA</i> 89:8990-8994 (1992).							
· KS:	Campbell et al., "Building Proteins with Fibronectin Type III Modules," Structure 2:333-337 (1994).							
, 42	Clackson and Wells, "In Vitro Selection from Protein and Peptide Libraries," TIBTECH 12:173-184 (1994).							
: 45	Clackson et al., "Making Antibody Fragments Using Phage Display Libraries," Nature 352:624-628 (1991).							
EXAMINER AND DATE CONSIDERED 7.3.01								
EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with the next communication to applicant.								



Sheet __3__ of __4___

E 53						
SUBSTANTE	PATENT AND TRADE		Attorney Docket No.	50036/021002		
(MODIFIED) PATENT AND TRADEMARK OFFI		MARK OFFICE	Serial No.	09/456,693		
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)			Applicant	Dasa Lipovsek et al.		
		•	Filing Date	December 9, 1999		
			Group	1646 1653		
(37 CFR §1.98(b))			IDS Filed	November 6, 2000		
	OTHER DOCUMENTS (INCLUDING A	UTHOR, TITLE, D	ATE, PLACE OF PUBL	CATION)		
1 18.	Koide et al. "Directed Evolution of Fibronectin Type III Domain to Novel Ligand Binding Proteins," Designing Small and Large Molecules I Abstract 1739					
. 115	Ku and Schultz, "Alternate Protein Frameworks for Molecular Recognition," <i>Proc. Natl. Acad. Sci. USA</i> 92:6552-6556 (1995).					
· K	Leahy et al., "Structure of a Fibronectin Type III Domain from Tenascin Phased by MAD Analysis of the Selenomethionyl Protein," Science 258:987-991 (1992).					
. *	Litvinovich and Ingham, "Interactions Between Type III Domains in the 110 kDa Cell-Binding Fragment of Fibronectin," J. Mol. Biol. 248:611-626 (1995).					
· 42	Lombardo et al., "Conformational Flexibility and Crystallization of Tandemly Linked Type III Modules of Human Fibronectin," <i>Protein Sci</i> 5:1934-1938 (1996).					
0 15	Main et al., "The Three-Dimensional Structure of the Tenth Type III Module of Fibronectin: An Insight into RGD-Mediated Interactions," Cell 71:671-678 (1992).					
1 /18	Markland et al., "Iterative Optimization of High-Affinity Protease Inhibitors Using Phage Display. 1. Plasmin," Biochemistry 35:8045-8057 (1996).					
·KS	Markland et al., "Iterative Optimization of High-Affinity Protease Inhibitors Using Phage Display. 2. Plasma Kallikrein and Thrombin," <i>Biochemistry</i> 35:8058-8067 (1996).					
0 KS	McConnell and Hoess, "Tendamistat as a Scaffold for Conformationally Constrained Phage Peptide Libraries," J. Mol. Biol. 250:460-470 (1995).					
1 48	Meinke et al., "Cellulose-Binding Polypeptides from <i>Cellulomonas fimi</i> : Endoglucanase D (CenD), a Family A β-1,4-Glucanase," <i>J. Bacteriology</i> 175:1910-1918 (1993).					
1 45	Muller et al., "Structure of the NF-kB p50 Homodimer Bound to DNA," Nature 373:311-317 (1995).					
1 45	Nord et al., "Binding Proteins Selected From Combinatorial Libraries of an α-Helical Bacterial Receptor Domain," Nature Biotechnology 15:772-777 (1997).					
, K	Nord et al., "A Combinatorial Library of an α-Helical Bacterial Receptor Domain," <i>Protein Eng.</i> 8:601-608 (1995).					
K.	Nygren and Uhlen, "Scaffolds for Engineering Novel Binding Sites in Proteins," Current Opinion in Structural Biology 7:463-469 (1997).					
双.	Plaxco et al., "Rapid Refolding of a Proline-Rich All-β-Sheet Fibronectin Type III Module," <i>Proc. Natl. Acad. Sci. USA</i> 93:10703-10706 (1996).					
· K	Plaxco et al., "A Comparison of the Folding Kinetics and Thermodynamics of Two Homologous Fibronectin Type III Modules," <i>J. Mol. Biol.</i> 270:763-770 (1997).					
K5 .	Potts and Campbell, "Structure and Function of Fibronectin Modules," Matrix Biology 15:313-320 (1996).					
115,	Potts and Campbell, "Fibronectin Structure and Assembly," Curr. Opin. Cell Biol. 6:648-655 (1994).					
EXAMINER AND DATE CONSIDERED 7-3-01						
EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with the next communication to applicant.						

OIPE VOINTER

Sheet __4__ of _4___

DELOSMARIE					
SUBSTITUTE F	FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	•	50036/021002		
(MODIFIED) FATENT AND TRADEMARK OFFICE		Serial No.	09/456,693		
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)		Applicant	Dasa Lipovsek et al.		
		Filing Date	December 9, 1999		
		Group	1646 1653		
(37 CFR §1.98(b))	IDS Filed	November 6, 2000		
	OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PLACE OF PUBLICATION)				
, K	Roberts and Szostak, "RNA-Peptide Fusions for the <i>In Vitro</i> Selection of Peptides and Proteins," <i>Proc. Natl. Acad. Sci. USA</i> 94:12297-12302 (1997).				
, 15	Rottgen and Collins, "A Human Pancreatic Secretory Trypsin Inhibitor Presenting a Hypervariable Highly Constrained Epitope Via Monovalent Phagemid Display," <i>Gene</i> 164:243-250 (1995).				
H5.	Shibata et al., "An Attempt to Substitute the Cell Binding Domain of Human Fibronectin in Lambda Phage J Protein: Computer Design and Expression," <i>Biochimie</i> 75:459-465 (1993).				
H5.	Smith and Petrenko, "Phage Display," Chem. Rev. 97:391-410 (1997).				
HS.	Tramontano et al., "The Making of the Minibody: An Engineered β-Protein for the Display of Conformationally Constrained Peptides," <i>J. Molecular Recognition</i> 7:9-24 (1994).				
HS,	Wang et al., "Isolation of a High Affinity Inhibitor of Urokinase-Type Plasminogen Activator by Phage Display of Ecotin," <i>J. Biol. Chem.</i> 270:12250-12256 (1995).				
KS.	Watanabe et al., "Gene Cloning of Chitinase A1 From <i>Bacillus Circulans</i> WL-12 Revealed Its Evolutionary Relationship to Serratia Chitinase and to the Type III Homology Units of Fibronectin," <i>J. Biol. Chem.</i> 265:15659-15665 (1990).				
K5,	Williams et al., "Solution Structures of Modular Proteins by Nuclear Magnetic Resonance," <i>Methods Enzymol</i> 245:451-469 (1994).				
1 15	Williams and Barclay, "The Immunoglobulin Superfamily - Domains for Cell Surface Recognition," Ann. Rev. Immunol. 6:381-405 (1988).				
EXAMINER	Thally Shi DATE O	CONSIDERED 7-3	3-01		
EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with the next communication to applicant.					